

A NEW SPECIES OF *NEPTICULA* ON BUR OAK IN ONTARIO (*NEPTICULIDAE*)

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DURING THE PAST FEW YEARS some officers of the Forest Insect Survey of Canada, Department of Forestry and Rural Development, have been studying an undescribed species of *Nepticula* v. Heyd. which is abundant on bur oak in the Lake Simcoe District of Ontario. The description is presented here to assist those officers in publishing the results of their investigations.

***Nepticula macrocarpae* sp. n.**

General. Face black. Vertex creamy yellow. Antenna blackish at base, gradually becoming ochreous toward apex. Eye-cap, thorax, base of fore wing, and median wing fascia creamy yellow. Median fascia broad, occupying about one-third of wing just before middle, and slightly wider on coastal and trailing margins. Remainder of wing brownish-black; apical fringe whitish; trailing fringe fuscous. Hind wing and fringe fuscous. Abdomen dull steel-grey dorsally, creamy yellow ventrally. Legs creamy yellow. Wing spread 4 mm. There are two generations each year. The moths occur in early June, and again in late July and early August.

Male genitalia (Fig. 1). Uncus heavily sclerotized, bilobed. Gnathos heavily sclerotized, M-shaped. Vinculum broadly arcuate laterally, truncate ventrally. Clasper broad, with apical tooth. Transtilla bifid, each arm subtriangular. Aedeagus broad, short, tubular; cornutus broad, arcuate.

Female genitalia (Fig. 2). Ovipositor lobes short, subconical. Apophyses short, thick. Ductus bursae membranous. Bursa with two bands of short stout teeth.

Mine. Upper side serpentine, about 2 cm. long and with a central frass line.

Holotype. Male, Orillia, Ontario, 12 August 1965. Forest Insect Survey No. S65-4100-01. No 9539 in the Canadian National Collection, Ottawa.

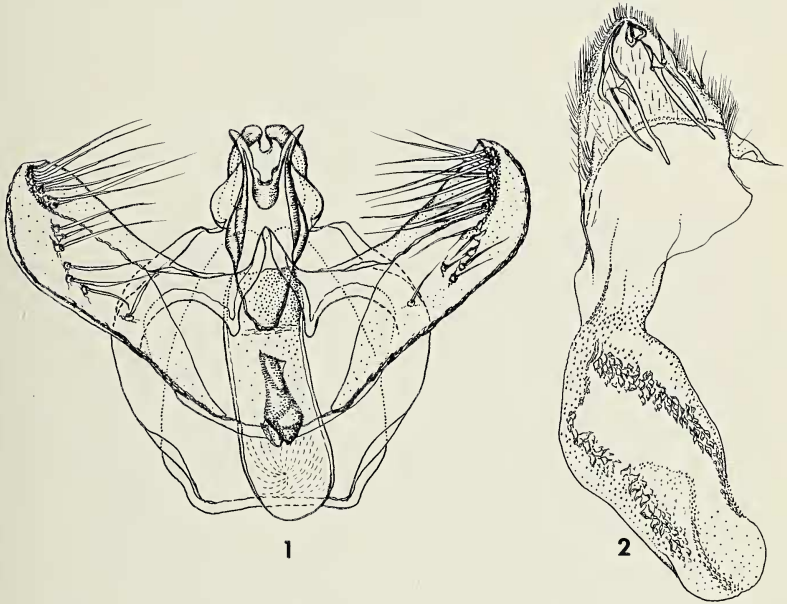
Paratypes. Seven males, thirteen females, same locality as holotype, August 12, 15, 30, 1965. All type material reared from *Quercus macrocarpa* Michx.

Distribution. Known only from Orillia, Ontario, but probably occurs elsewhere within the distribution of the host tree.

Remarks. This species will key to *latifasciella* Chambers in Braun's key in Forbes (1923, *Cornell Univ. Agr. Exp. Sta. Mem.* 68: 84). I have examined Chambers' type in the Museum of Comparative Zoology, Cambridge, Mass. It is a female securely glued to a paper point, and except for the thorax, is in good condition. There are several differences between it and *macrocarpa*. Firstly, Chambers collected his specimen in Kentucky from the bark of a sweet chestnut tree (*Castanea dentata* (Marsh.) Borkh.), the leaves of which contained many empty *Nepticula* mines. Secondly, there are significant colour differences as outlined below.

N. latifasciella. Face rusty-yellow. Vertex dark brown. Antenna silvery. Abdomen fuscous dorsally, pale greyish fuscous ventrally. Legs dark fuscous.

N. macrocarpa. Face black. Vertex creamy yellow. Antenna blackish basally, ochreous apically. Abdomen steel-grey dorsally, creamy yellow ventrally. Legs creamy yellow.



Figs. 1, 2.—Genitalia of *Nepticula macrocarpae* sp. n. 1, male. 2, female.